

WE CLAIM:

1. An agricultural utility vehicle comprising a computer to execute the steps comprising:

storing data representing steering direction, position and speed of the agricultural vehicle;

recognizing repeated drive events wherein each drive event comprises a plurality of serially performed functions including changing steering direction, changing speed and changing lift position of a hitch of the agricultural utility vehicle;

displaying each function on a screen and enabling a user to skip functions and execute subsequent functions;

executing the functions to automatically control the vehicle on private areas, which are determined in accordance with means for sensing position;

blocking execution of the functions in public areas;

deactivating control when obstacles are encountered, wherein the obstacles are recognized by way of signals received from cameras mounted on the agricultural vehicle; and

periodically prompting a user for input.

2. A method of controlling an agricultural utility vehicle including means for determining the direction of travel, the travelling speed, the engine speed, the gear ratio, the speed of a drive wheel, the position, total width, and treatment width of the coupled load, at least one automatic speed controller, a speed range changing switch, the method comprising the steps of:

automatically controlling the direction of travel, the travelling speed, operation of the coupled load, the lifting gear position,

storing data from the means for determining;

recognizing repeated drive management events, wherein each drive management event includes a plurality of functions;

displaying the functions as a whole or in route blocks and/or in timed individual steps and permitting an operator to skip at least one of the plurality of functions;

automatically blocking execution of the functions in the public traffic space;
deactivating automatically execution of the functions when obstacles are
encountered; and
monitoring the operator's attention and stopping the vehicle if the operator does not
react.

3. A method of controlling an agricultural vehicle according to claim 2, wherein the
means for determining includes an on-board computer including an exchangeable data
medium, a control panel, a display screen, and at least one of a radio interface, a satellite-
supported navigation system, an ultrasonic device, a radar device and sensors for recording
and recognition of fixed and/or movable obstacles, and the step of storing data includes
storing data from the at least one of the satellite-supported navigation system, the
ultrasonic device a radar device and sensors for recording and recognition of fixed and/or
movable obstacles in the exchangeable data medium.

4. A method of controlling an agricultural vehicle according to claim 2, wherein the
agricultural vehicle includes sensors for recording and recognition of fixed and/or movable
obstacles, and the step of deactivating automatically the drive management system when
obstacles are encountered includes sensing the obstacles with the sensors, displaying the
presence of the obstacles, and deactivating immediately or after a time delay after the
presence of the obstacles are displayed.

5. A method of controlling an agricultural vehicle according to claim 2, wherein the
drive management system can be deactivated via an emergency push-button.

6. A method of controlling an agricultural utility vehicle according to claim 3,
wherein,
a) on a computer independent of the utility vehicle, a simulation takes place, the result
of the simulation flows into a program and this program is entered into the on-
board computer of the agricultural utility vehicle,

- b) a reconciliation of the data from the programmed version with the current data during the first and/or the following run and turning maneuver takes place, the data is corrected if necessary and the deviations and alterations are displayed,
- c) the amended updated data is input via the radio interface into the computer which is independent of the utility vehicle, at the same time the simulation is run again,
- d) and by means of constant data exchange the program is automatically optimized.

7. A method of controlling an agricultural utility vehicle in accordance with claim 6, wherein,

- a) in the computer independent of the utility vehicle a virtual expanse of the non-public, agriculturally exploited area to be treated is laid out,
- b) and the boundaries of this virtual expanse are variably changeable depending upon the agricultural utility vehicle employed and its coupled load and/or mounted implement.

8. A method of controlling an agricultural utility vehicle in accordance with claim 7, wherein

- a) in the computer independent of the utility vehicle and/or the on-board computer a virtual grid is laid down for the relevant, non-public, agriculturally exploited area,
- b) the grid lines and/or intersections of the grid serve as the basis for controlling the agricultural utility vehicle depending upon the vehicle employed and its coupled load and/or mounted implement,
- c) the outermost lines are utilized simultaneously as boundary lines, which the vehicle may not drive over in automatic operation,
- d) while on crossing over the grid lines and/or intersections of the grid appropriate functions and/or actions of the agricultural utility vehicle including the coupled load are triggered.

9. A method of controlling an agricultural utility vehicle in accordance with claim 3, wherein,

- a) recognition of obstacles and the field end is effected with a camera system,

- b) in which at least one camera delivers comparison signals and these are combined with at least the signals from another camera and/or from other sensors and the information gained from this is stored and evaluated in a separate microcomputer system, and
- c) the evaluated information is entered into the on-board computer, which takes account of the immovable obstacles,
- d) for moving obstacles that are situated within a specified hazard area, warning the operator that the functions are deactivated simultaneously and/or after a time delay.